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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,297	09/21/2005	Raymond Andrieu	5001-1101-1	1931
466 7590 04/19/2007 YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			EXAMINER SCHILLINGER, ANN M	
			ART UNIT 3738	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/19/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,297	<b>Applicant(s)</b> ANDRIEU ET AL.	
	<b>Examiner</b> Ann Schillinger	<b>Art Unit</b> 3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/21/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 14 is objected to because of the following informalities: the claim language contains the trademarked material "Teflon." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8-13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Dzemeshevich et al. (U.S. Pat. No. 4,692,164). Dzemeshevich et al. discloses the following of claim 1: intraparietal reinforcement valve (4) that is designed to be integrated into a biological prosthesis (1), characterized by the fact that it is suitable for being placed inside the organic tissue of this biological prosthesis (col. 8, line 65 through col. 9, line 5) and for reinforcing the structure of the latter so as to keep its shape after implantation (col. 11, lines 36-50). It should be noted that the examiner is interpreting the phrase "the organic tissue of this biological prosthesis" in line 4 to indicate that the prosthesis has some organic, biological tissue.

Dzemeshevich et al. discloses the following of claim 2: intraparietal reinforcement device according to claim 1, wherein it comprises an intraparietal rod (9) that is suitable for being inserted into the organic tissue of biological prosthesis (1) and a leg (11) that is attached to a first end of rod (upper end of element 9).

Dzemeshevich et al. discloses the following of claim 3: intraparietal reinforcement device according to claim 2, wherein it comprises in addition an attachment (8) that is suitable for being attached to a second end of rod (lower end of element 9).

Dzemeshevich et al. discloses the following of claims 4 and 15: intraparietal reinforcement device, wherein intraparietal rod is straight (see Figure 3).

Dzemeshevich et al. discloses the following of claim 8: intraparietal reinforcement device according to claim 2, wherein leg is made by a straight bar (see Figure 3).

Dzemeshevich et al. discloses the following of claim 9: intraparietal reinforcement device according to claim 2, wherein leg is made by a curved bar, whereby the curvature corresponds to the curvature of the outside circumference of biological prosthesis (see Figure 3).

Dzemeshevich et al. discloses the following of claim 10: intraparietal reinforcement device according to claim 3, wherein attachment is made by a curved bar, whereby the curvature corresponds to the curvature of the outside circumference of biological prosthesis (see Figures 7, 8).

Dzemeshevich et al. discloses the following of claim 11: biological prosthesis, wherein it is provided with at least one intraparietal reinforcement device (7) according to claim 1.

Art Unit: 3738

Dzemeshevich et al. discloses the following of claim 12: biological prosthesis according to claim 11, wherein it involves an animal aortic valve that comprises intraparietal reinforcement devices (col. 5, lines 47-53).

Dzemeshevich et al. discloses the following of claim 13: biological prosthesis according to claim 12, wherein intraparietal rod of intraparietal reinforcement devices is placed inside tubular outside wall (5) of the valve along lines of intersection of this wall with commissures (44) of the valve.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dzemeshevich et al. in view of Love (U.S. Pat. No. 5,865,723). Dzemeshevich et al. discloses the invention substantially as claimed, however, Dzemeshevich et al. does not disclose parts of the intraparietal reinforcement valve having helical shapes. Love teaches the helical portions in col. 7, lines 25-60 for the purpose of being able to adjust the frame's pitch without loosening from the tissue and leaking. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use helical portions in order to be able to adjust the frame's pitch without loosening from the tissue and leaking.

Claims 7 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dzemeshevich et al. in view of McGuckin, JR. et al. (U.S. Pub. No. 2004/0098098).

Art Unit: 3738

Dzemeshevich et al. discloses the invention substantially as claimed, however, Dzemeshevich et al. does not disclose the support rod having pointed ends. McGuckin, JR. et al. teaches the support rod having pointed ends in paragraphs 0138 and 0139 for the purpose of securing the prosthesis into the vessel wall. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a support rod having pointed ends in order to secure the prosthesis into the vessel wall.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dzemeshevich et al. in view of Arru et al. (U.S. Pat. No. 4,666,442). Dzemeshevich et al. discloses the invention substantially as claimed, however, Dzemeshevich et al. does not disclose using Teflon in the biological prosthesis. Arru et al. teaches using Teflon in col. 4, lines 4-11 for the purpose of utilizing its biocompatible properties. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Teflon in order to take advantage of its biocompatible properties.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Schillinger whose telephone number is (571) 272-6652. The examiner can normally be reached on Mon. thru Fri. 9 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3738

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ann Schillinger  
April 13, 2007

*A. Stewart*  
**ALVIN J. STEWART**  
**PRIMARY EXAMINER**